

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 14:18:19 ON 27 MAR 1998

=> file biosis embase ca wpids

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FILE 'WPIDS' ENTERED AT 14:18:30 ON 27 MAR 1998  
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=> s ((anti-bacterial) or antibacterial) (6a) gene# or cdna# or dna#)

UNMATCHED RIGHT PARENTHESIS 'DNA#)'

The number of right parentheses in a query must be equal to the number of left parentheses.

=> s ((anti-bacterial) or antibacterial) (6a) (gene# or cdna# or dna#)

1 FILES SEARCHED...

2 FILES SEARCHED...

L1 2383 ((ANTI-BACTERIAL) OR ANTIBACTERIAL) (6A) (GENE# OR CDNA# OR DNA#)

=> s l1 (p) plant# (p) (transgenic or transform?)

PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH  
FIELD CODE - 'AND' OPERATOR ASSUMED 'L1 (P) PLANT#'

PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH  
FIELD CODE - 'AND' OPERATOR ASSUMED 'PLANT# (P) '

L2 18 L1 (P) PLANT# (P) (TRANSGENIC OR TRANSFORM?)

=> dup rem l2

PROCESSING COMPLETED FOR L2

L3 17 DUP REM L2 (1 DUPLICATE REMOVED)

=> d ti 1-17

L3 ANSWER 1 OF 17 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD  
TI Plant resistant to pathogenic fungi and bacteria - especially containing insect gene encoding sarcotoxin 1a.

L3 ANSWER 2 OF 17 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD  
TI Expression system for anaerobic gene expression in plants - contg.

GapC4 promoter and gene to express e.g. anti-bacterial protein.

- L3 ANSWER 3 OF 17 CA COPYRIGHT 1998 ACS  
TI Development of **transgenic plants** with non-  
**plant antibacterial** protein **genes** for  
resistance to bacterial pathogens
- L3 ANSWER 4 OF 17 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD  
TI DNA encoding novel Avena sativa L derived thionin - which can be  
introduced into plant to confer high antimicrobial activity.
- L3 ANSWER 5 OF 17 BIOSIS COPYRIGHT 1998 BIOSIS  
TI Obtaining **transgenic** Anthurium through Agrobacterium-  
mediated **transformation** of etiolated internodes.
- L3 ANSWER 6 OF 17 CA COPYRIGHT 1998 ACS  
TI Antimicrobial protein from onion
- L3 ANSWER 7 OF 17 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD  
TI Antimicrobial protein and DNA encoding it - useful to apply or to  
transform plants to protect against plant pathogens.
- L3 ANSWER 8 OF 17 BIOSIS COPYRIGHT 1998 BIOSIS  
TI Bombyx mori cecropin B, an **antibacterial** protein:  
Structure, regulation of the **gene** expression and  
**antibacterial** spectra.
- L3 ANSWER 9 OF 17 CA COPYRIGHT 1998 ACS DUPLICATE 1  
TI Genetic alteration of insect symbionts
- L3 ANSWER 10 OF 17 CA COPYRIGHT 1998 ACS  
TI Antibacterial glycopeptides from insects and their preparation and  
use
- L3 ANSWER 11 OF 17 BIOSIS COPYRIGHT 1998 BIOSIS  
TI Expression of of a human lactoferrin **cDNA** in tobacco cells  
produces **antibacterial** protein(s).
- L3 ANSWER 12 OF 17 CA COPYRIGHT 1998 ACS  
TI Transferring synthetic antibacterial peptide gene from Chinese oak  
silkworm into mulberry plant by using Ti plasmid from Agrobacterium  
tumefaciens
- L3 ANSWER 13 OF 17 CA COPYRIGHT 1998 ACS  
TI Genetic engineering of Chinese potato cultivars by introducing  
antibacterial polypeptide gene
- L3 ANSWER 14 OF 17 BIOSIS COPYRIGHT 1998 BIOSIS  
TI AGROBACTERIUM MEDIATED **TRANSFORMATION** OF ANTHURIUM AND  
REGENERATION OF **TRANSGENIC PLANTS**.
- L3 ANSWER 15 OF 17 BIOSIS COPYRIGHT 1998 BIOSIS  
TI INTRODUCTION OF AN **ANTIBACTERIAL GENE** IN POTATO  
SOLANUM-TUBEROSUM L. USING A BINARY VECTOR IN AGROBACTERIUM-  
RHIZOGENES.
- L3 ANSWER 16 OF 17 CA COPYRIGHT 1998 ACS  
TI Plants genetically enhanced for disease-resistance or enhanced  
nutritional quality
- L3 ANSWER 17 OF 17 CA COPYRIGHT 1998 ACS  
TI Increasing bacterial disease resistance in plants utilizing  
antibacterial genes from insects

=> s hinge (p) chitinase#

PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH  
FIELD CODE - 'AND' OPERATOR ASSUMED 'HINGE (P) CHITINASE'  
L4 23 HINGE (P) CHITINASE#

=> dup rem l4

PROCESSING COMPLETED FOR L4  
L5 11 DUP REM L4 (12 DUPLICATES REMOVED)

=> d ti 1-11

L5 ANSWER 1 OF 11 CA COPYRIGHT 1998 ACS DUPLICATE 1  
TI Expression of fungicidal protein genes from a pathogenesis-related gene promoter in transgenic plants resistant to phytopathogenic fungi

L5 ANSWER 2 OF 11 BIOSIS COPYRIGHT 1998 BIOSIS DUPLICATE 2  
TI Proteolytic processing of class IV **chitinase** in the compatible interaction of bean roots with *Fusarium solani*.

L5 ANSWER 3 OF 11 BIOSIS COPYRIGHT 1998 BIOSIS DUPLICATE 3  
TI Cloning of a cDNA for a **chitinase** homologue which lacks chitin-binding sites and is down-regulated by water stress and wounding.

L5 ANSWER 4 OF 11 BIOSIS COPYRIGHT 1998 BIOSIS DUPLICATE 4  
TI Characterization of a class I **chitinase** gene and of wound-inducible, root and flower-specific **chitinase** expression in *Brassica napus*.

L5 ANSWER 5 OF 11 CA COPYRIGHT 1998 ACS  
TI Comparison of enzymes catalyzing the hydrolysis of insoluble polysaccharides

L5 ANSWER 6 OF 11 BIOSIS COPYRIGHT 1998 BIOSIS DUPLICATE 5  
TI Molecular analysis of two cDNA clones encoding acidic class I **chitinase** in Maize.

L5 ANSWER 7 OF 11 BIOSIS COPYRIGHT 1998 BIOSIS DUPLICATE 6  
TI The complete amino acid sequence of **chitinase**-a from the seeds of rye (*Secale cereale*).

L5 ANSWER 8 OF 11 BIOSIS COPYRIGHT 1998 BIOSIS DUPLICATE 7  
TI A hydroxyproline-containing class IV **chitinase** of sugar beet is glycosylated with xylose.

L5 ANSWER 9 OF 11 BIOSIS COPYRIGHT 1998 BIOSIS DUPLICATE 8  
TI THE COMPLETE AMINO ACID SEQUENCE OF YAM *DIOSCOREA-JAPONICA* **CHITINASE** A NEWLY IDENTIFIED ACIDIC CLASS I **CHITINASE**

L5 ANSWER 10 OF 11 BIOSIS COPYRIGHT 1998 BIOSIS DUPLICATE 9  
TI *POPULUS* **CHITINASE** GENES STRUCTURE ORGANIZATION AND SIMILARITY OF TRANSLATED SEQUENCES TO HERBACEOUS PLANT **CHITINASES**.

L5 ANSWER 11 OF 11 BIOSIS COPYRIGHT 1998 BIOSIS DUPLICATE 10  
TI STRUCTURE OF A TOBACCO ENDOCHITINASE GENE EVIDENCE THAT DIFFERENT **CHITINASE** GENES CAN ARISE BY TRANSPOSITION OF SEQUENCES ENCODING A CYSTEINE-RICH DOMAIN.

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FILE 'USPAT' ENTERED AT 13:07:30 ON 27 MAR 1998

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\* W E L C O M E T O T H E \*  
\* U . S . P A T E N T T E X T F I L E \*  
\*\*\*\*\*

=> s sarcotoxin

L1 18 SARCOTOXIN

=> d ti 1-18

US PAT NO:	5,719,055 [IMAGE AVAILABLE]	L1: 1 of 18
TITLE:	Transposon-based transformation vectors	
US PAT NO:	5,714,467 [IMAGE AVAILABLE]	L1: 2 of 18
TITLE:	Antibacterial and antimalarial hybrid peptides	
US PAT NO:	5,686,563 [IMAGE AVAILABLE]	L1: 3 of 18
TITLE:	Biologically active peptides having n-terminal substitutions	
US PAT NO:	5,654,274 [IMAGE AVAILABLE]	L1: 4 of 18
TITLE:	Biologically active peptides having N-terminal substitutions	
US PAT NO:	5,635,479 [IMAGE AVAILABLE]	L1: 5 of 18
TITLE:	Treatment of gynecological malignancies with biologically active peptides	
US PAT NO:	RE 35,492 [IMAGE AVAILABLE]	L1: 6 of 18
TITLE:	Wound treatment employing biologically active ion channel forming peptides and proteins	
US PAT NO:	5,597,945 [IMAGE AVAILABLE]	L1: 7 of 18
TITLE:	Plants genetically enhanced for disease resistance	
US PAT NO:	5,589,364 [IMAGE AVAILABLE]	L1: 8 of 18
TITLE:	Recombinant production of biologically active peptides and proteins	
US PAT NO:	5,585,353 [IMAGE AVAILABLE]	L1: 9 of 18
TITLE:	Antibiotic peptides containing D-amino acids	
US PAT NO:	5,556,782 [IMAGE AVAILABLE]	L1: 10 of 18
TITLE:	Transformed mammalian cells capable of expressing cecropin b	
US PAT NO:	5,519,115 [IMAGE AVAILABLE]	L1: 11 of 18
TITLE:	Reverse antimicrobial peptides	
US PAT NO:	5,300,629 [IMAGE AVAILABLE]	L1: 12 of 18
TITLE:	Bactericidal and/or bacteriostatic peptides isolated from hemolymph of honeybees	
US PAT NO:	5,254,535 [IMAGE AVAILABLE]	L1: 13 of 18

TITLE: Composition and treatment with biologically active peptides and antibiotic  
 US PAT NO: 5,221,664 [IMAGE AVAILABLE] L1: 14 of 18  
 TITLE: Composition and treatment with biologically active peptides and toxic cations  
 US PAT NO: 5,217,956 [IMAGE AVAILABLE] L1: 15 of 18  
 TITLE: Composition and treatment with biologically active peptides and certain anions  
 US PAT NO: 5,208,220 [IMAGE AVAILABLE] L1: 16 of 18  
 TITLE: Composition and treatment with biologically active peptides and antibiotics which inhibit DNA gyrase  
 US PAT NO: 5,045,531 [IMAGE AVAILABLE] L1: 17 of 18  
 TITLE: Wound treatment employing biologically active ion channel forming peptides and proteins  
 US PAT NO: 5,043,176 [IMAGE AVAILABLE] L1: 18 of 18  
 TITLE: Synergistic antimicrobial compositions

=> s sarcotoxin (p) plant#

18 SARCOTOXIN  
 140375 PLANT#  
 L2 1 SARCOTOXIN (P) PLANT#

=> d ti

US PAT NO: 5,043,176 [IMAGE AVAILABLE] L2: 1 of 1  
 TITLE: Synergistic antimicrobial compositions

=> d bib ab

US PAT NO: 5,043,176 [IMAGE AVAILABLE] L2: 1 of 1  
 DATE ISSUED: Aug. 27, 1991  
 TITLE: Synergistic antimicrobial compositions  
 INVENTOR: Nancy L. Bycroft, Constantine, MI  
 Graham S. Byng, Elkhart, IN  
 Stephen R. Good, Elkhart, IN  
 ASSIGNEE: Haarmann & Reimer Corp., Springfield, NJ (U.S. corp.)  
 APPL-NO: 07/537,463  
 DATE FILED: Jun. 13, 1990  
 ART-UNIT: 132  
 PRIM-EXMR: Carolyn Paden  
 LEGAL-REP: Mary G. Boguslaski

US PAT NO: 5,043,176 [IMAGE AVAILABLE] L2: 1 of 1

#### ABSTRACT:

The invention discloses an antimicrobial composition composed of an antimicrobial polypeptide and a hypothiocyanate component. Synergistic activity is seen when the composition is applied at between about 30 and 40 degrees Centigrade at a pH between about 3 and about 5. The composition is useful against gram negative bacteria such as Salmonella. A preferred composition is nisin, lactoperoxidase, thiocyanate and hydrogen peroxide. Such a composition is capable of reducing the viable cell count of Salmonella by greater than 6 logs in 10 to 20 minutes.

=> d kwic

## SUMMARY:

BSUM(8)

Synergistic combinations of lysozyme and cecropins or **sarcotoxin** have been reported to lyse or inhibit eucaryotic cells in PCT application, International Publication No. WO 89/00194, assigned to the . . . University Agricultural and Mechanical College. The disclosure states that the activity of a lytic polypeptide such as a cecropin or **sarcotoxin** may be enhanced by combination with lysozyme. Such synergistic combinations may be used not only to lyse or inhibit eucaryotes, . . . application, for example, in a spray applied in an effective amount to crops to prevent infection by, or to inhibit **plant** pathogens.

=&gt; s cecropin (p) plant#

55 CECROPIN  
140375 PLANT#  
L3 11 CECROPIN (P) PLANT#

=&gt; d ti 1-11

US PAT NO:	5,719,055 [IMAGE AVAILABLE]	L3: 1 of 11
TITLE:	Transposon-based transformation vectors	
US PAT NO:	5,659,026 [IMAGE AVAILABLE]	L3: 2 of 11
TITLE:	ALS3 promoter	
US PAT NO:	5,597,946 [IMAGE AVAILABLE]	L3: 3 of 11
TITLE:	Method for introduction of disease and pest resistance into plants and novel genes incorporated into plants which code therefor	
US PAT NO:	5,597,945 [IMAGE AVAILABLE]	L3: 4 of 11
TITLE:	Plants genetically enhanced for disease resistance	
US PAT NO:	5,589,364 [IMAGE AVAILABLE]	L3: 5 of 11
TITLE:	Recombinant production of biologically active peptides and proteins	
US PAT NO:	5,556,782 [IMAGE AVAILABLE]	L3: 6 of 11
TITLE:	Transformed mammalian cells capable of expressing cecropin b	
US PAT NO:	5,519,115 [IMAGE AVAILABLE]	L3: 7 of 11
TITLE:	Reverse antimicrobial peptides	
US PAT NO:	5,466,671 [IMAGE AVAILABLE]	L3: 8 of 11
TITLE:	Apidaecin-type peptide antibiotics with improved activities and/or different antibacterial spectrum	
US PAT NO:	5,374,540 [IMAGE AVAILABLE]	L3: 9 of 11
TITLE:	Chitinase-producing bacteria and plants	
US PAT NO:	5,290,687 [IMAGE AVAILABLE]	L3: 10 of 11
TITLE:	Chitinase-producing bacteria and plants	
US PAT NO:	5,043,176 [IMAGE AVAILABLE]	L3: 11 of 11
TITLE:	Synergistic antimicrobial compositions	

=> s cecropin (p) plant# (p) transgenic

55 CECROPIN  
140375 PLANT#  
1586 TRANSGENIC  
L4 6 CECROPIN (P) PLANT# (P) TRANSGENIC

=> d ti 1-6

US PAT NO: 5,719,055 [IMAGE AVAILABLE] L4: 1 of 6  
TITLE: Transposon-based transformation vectors

US PAT NO: 5,659,026 [IMAGE AVAILABLE] L4: 2 of 6  
TITLE: ALS3 promoter

US PAT NO: 5,589,364 [IMAGE AVAILABLE] L4: 3 of 6  
TITLE: Recombinant production of biologically active peptides and proteins

US PAT NO: 5,556,782 [IMAGE AVAILABLE] L4: 4 of 6  
TITLE: Transformed mammalian cells capable of expressing cecropin b

US PAT NO: 5,374,540 [IMAGE AVAILABLE] L4: 5 of 6  
TITLE: Chitinase-producing bacteria and plants

US PAT NO: 5,290,687 [IMAGE AVAILABLE] L4: 6 of 6  
TITLE: Chitinase-producing bacteria and plants

=> d 13 bib ab 4

US PAT NO: 5,597,945 [IMAGE AVAILABLE] L3: 4 of 11  
DATE ISSUED: Jan. 28, 1997  
TITLE: Plants genetically enhanced for disease resistance  
INVENTOR: Jesse M. Jaynes, Baton Rouge, LA  
Kenneth S. Derrick, Lake Alfred, FL  
ASSIGNEE: Board of Supervisors of Louisiana State University and  
Agricultural and Mechanical College, Baton Rouge, LA  
(U.S. corp.)  
APPL-NO: 08/453,436  
DATE FILED: May 30, 1995  
ART-UNIT: 183  
PRIM-EXMR: David T. Fox

US PAT NO: 5,597,945 [IMAGE AVAILABLE] L3: 4 of 11

ABSTRACT:

**Plant** transformants having an expressible heterologous gene for an antimicrobial agent for disease resistance and/or a protein high in limiting essential amino acid content for enhanced nutritional quality. Monocots, dicots and gymnosperms are genetically enhanced for disease resistance to express a lytic peptide such as **cecropin**, attacin or lysozyme, or an antiviral antisense micRNA. The nutritional quality of **plants** cultivated for food is enhanced by a gene expressing a protein containing 25-60 weight percent of methionine, lysine, tryptophan, threonine and isoleucine. Methods for obtaining such transformants, novel expressing vectors, novel proteins high in essential amino acids, and novel lytic peptides are also disclosed.

=> d his

L1 18 S SARCOTOXIN  
L2 1 S SARCOTOXIN (P) PLANT#  
L3 11 S CECROPIN (P) PLANT#  
L4 6 S CECROPIN (P) PLANT# (P) TRANSGENIC

=> s (sarcotoxin or cecropin or (anti-bacterial)) (p) plant# (p) (transgenic or transform?)

18 SARCOTOXIN  
55 CECROPIN  
149861 ANTI  
36069 BACTERIAL  
2620 ANTI-BACTERIAL  
(ANTI(W)BACTERIAL)  
140375 PLANT#  
1586 TRANSGENIC  
191367 TRANSFORM?  
L5 9 (SARCOTOXIN OR CECROPIN OR (ANTI-BACTERIAL)) (P) PLANT# (P)  
(T  
RANSGENIC OR TRANSFORM?)

=> d ti 1-9

US PAT NO:	5,719,055 [IMAGE AVAILABLE]	L5: 1 of 9
TITLE:	Transposon-based transformation vectors	
US PAT NO:	5,659,026 [IMAGE AVAILABLE]	L5: 2 of 9
TITLE:	ALS3 promoter	
US PAT NO:	5,629,470 [IMAGE AVAILABLE]	L5: 3 of 9
TITLE:	Transgenic plants and plant cells with enhanced pathogen resistance and related methods	
US PAT NO:	5,597,945 [IMAGE AVAILABLE]	L5: 4 of 9
TITLE:	Plants genetically enhanced for disease resistance	
US PAT NO:	5,589,364 [IMAGE AVAILABLE]	L5: 5 of 9
TITLE:	Recombinant production of biologically active peptides and proteins	
US PAT NO:	5,556,782 [IMAGE AVAILABLE]	L5: 6 of 9
TITLE:	Transformed mammalian cells capable of expressing cecropin b	
US PAT NO:	5,519,115 [IMAGE AVAILABLE]	L5: 7 of 9
TITLE:	Reverse antimicrobial peptides	
US PAT NO:	5,374,540 [IMAGE AVAILABLE]	L5: 8 of 9
TITLE:	Chitinase-producing bacteria and plants	
US PAT NO:	5,290,687 [IMAGE AVAILABLE]	L5: 9 of 9
TITLE:	Chitinase-producing bacteria and plants	